

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1                   1. A method of programming a welding-type  
2                   system, comprising:  
3                   storing at least one welding program in a  
4                   pda;  
5                   connecting the pda to the welding-type  
6                   system; and  
7                   downloading the at least one welding program  
8                   to the welding-type system.

1                   2. The method of claim 1, wherein storing  
2                   includes uploading the at least one program, from a second  
3                   welding-type system.

1                   3. The method of claim 1, wherein storing  
2                   includes e-mailing the at least one program.

1                   4. The method of claim 1, wherein connecting  
2                   includes making a wired connection between the pda and the  
3                   welding-type system.

1                   5. The method of claim 4, wherein connecting  
2                   includes making an RS232 connection between the pda and the  
3                   welding-type system.

1                   6. The method of claim 1, wherein connecting  
2                   includes making a wireless connection between the pda and  
3                   the welding-type system.

1           7.    The method of claim 6, wherein connecting  
2 includes making an IR connection between the pda and the  
3 welding-type system.

1           8.    A method of programming a welding-type  
2 system, comprising:  
3           storing a plurality of welding programs in a  
4 pda;  
5           connecting the pda to the welding-type  
6 system; and  
7           selecting at least one of the plurality of  
8 programs for downloading;  
9           downloading the at least one of the plurality  
10 of programs to the welding-type system.

1           9.    The method of claim 8 wherein selecting is  
2 performed before connecting.

1           10.   The method of claim 8 wherein selecting is  
2 performed after connecting.

1           11.   The method of claim 8, wherein storing  
2 includes at least one of uploading the at least one program,  
3 from a second welding-type system and e-mailing the at least  
4 one program.

1           12.   The method of claim 9, wherein connecting  
2 includes making at least one of an RS232 connection and an  
3 IR connection between the pda and the welding-type system.

1           13.   The method of claim 8, wherein the plurality  
2 of programs are stored in a single file, and downloading  
3 includes sending a portion of the file.

1           14. The method of claim 8, further comprising  
2 editing the at least one of the plurality of programs.

1           15. The method of claim 14, wherein editing is  
2 performed before downloading.

1           16. A welding-type system, comprising:  
2           a source of welding-type power;  
3           a controller, operatively connected to the  
4 source of welding-type power, wherein the controller  
5 includes a memory;  
6           a memory input, connected to the memory and  
7 further connectable to a pda;  
8           a downloading routine, operatively connected  
9 to the memory input.

1           17. The system of claim 16, further comprising a  
2 memory output, connected to the memory and further  
3 connectable to the pda.

1           18. The system of claim 16, wherein the memory  
2 input includes one of a wired or wireless connection.

1           19. The system of claim 18, wherein the memory  
2 input is one of an RS232 connection and an IR connection.

1           20. The system of claim 15, further comprising, a  
2 pda connected to the memory input, wherein the pda includes  
3 a memory with a weld program stored therein.

1           21. The system of claim 20, wherein the  
2 downloading routine is stored in the pda.

1           22. The system of claim 15, wherein the  
2 downloading routine is stored in the controller.

1           23. A welding-type system, comprising:  
2           a source of welding-type power;  
3           a controller, operatively connected to the  
4           source of welding-type power, wherein the controller  
5           includes a memory and a controller i/o port;  
6           a pda, having a memory and a plurality of  
7           weld programs stored therein, and further having a pda  
8           i/o port connected to the controller i/o port;  
9           a weld program selecting routine operatively  
10          connected to the pda; and  
11          a downloading routine, operatively connected  
12          to the pda.

1           24. The system of claim 23, further comprising an  
2           uploading routine, operatively connected to the pda.

1           25. The system of claim 24, wherein the i/o ports  
2           includes at least one of an RS232 connection and an IR  
3           connection.

1           26. The system of claim 22, further comprising a  
2           weld program editing routine operatively connected to the  
3           pda.

1           27. A welding-type system, comprising:  
2           a source of welding-type power;  
3           a controller, operatively connected to the  
4           source of welding-type power;  
5           controller memory means for storing at least  
6           one welding program in the controller, connected to the  
7           controller;  
8           pda memory means for storing at least one  
9           welding program in a pda;

10 means for connecting the pda memory means to  
11 the controller memory means; and

12 means for downloading the at least one  
13 welding program to the welding-type system, connected  
14 to the pda memory means for storing.

1 28. The system of claim 27, further comprising,  
2 connected to the pda means for storing, at least one of:  
3 means for uploading the at least one program from  
4 a second welding-type system;  
5 and means for e-mailing the at least one program.

1 29. An apparatus for programming a welding-  
2 type system, comprising:  
3 a source of welding-type power;  
4 a controller, operatively connected to the  
5 source of welding-type power;  
6 controller memory means for storing at least  
7 one welding program in the controller, connected to the  
8 controller;  
9 pda memory means for storing a plurality of  
10 welding programs in a pda;  
11 means for connecting the pda memory means to  
12 the controller memory means; and  
13 means for the user to select at least one of  
14 the plurality of programs for downloading;  
15 means for downloading the at least one of the  
16 plurality of programs to the controller memory means.

1 30. The apparatus of claim 29, wherein the means  
2 for downloading includes means for downloading a portion of  
3 a file.

1           31. The apparatus of claim 30, further comprising  
2 means for editing the at least one of the plurality of  
3 programs, connected to the pda memory means.

1           32. A program for storing weld schedules on  
2 a pda, comprising:

3           a storage routine, that stores at least one  
4 weld schedule in a memory on the pda;

5           a connection routine connects the pda to  
6 connect to a welding-type system; and

7           a download routine that downloads the at  
8 least one schedule to the welding-type system.

1           33. The program of claim 32, further comprising  
2 an upload routine that allows the pda to upload at least one  
3 weld schedule from at least one of a second welding-type  
4 system and an e-mail message.

1           34. The program of claim 33, wherein the  
2 connection routine includes a wireless protocol.

1           35. A program for storing weld schedule on a  
2 pda, comprising:

3           a storage routine, that stores a plurality of  
4 weld schedules in a memory on the pda;

5           a selection routine that allows the user to  
6 select at least one of the weld schedules for  
7 downloading;

8           a connection routine connects the pda to a  
9 welding-type system; and

10          a download routine that downloads the at  
11 least one schedule to the welding-type system.

1           36. The program of claim 35 wherein the selection  
2 routine is performed before the connection routine.

1           37. The program of claim 36, wherein the  
2 selection routine is performed after the connection routine.

1           38. The program of claim 35, further comprising  
2 an upload routine that allows the pda to upload at least one  
3 weld schedule from at least one of a second welding-type  
4 system and an e-mail message.

1           39. The program of claim 38, further comprising  
2 an editing routine that allows the user to edit the at least  
3 one of the plurality of schedules.

1           40. A method of uploading programs from a  
2 welding-type system, comprising:  
3           storing a plurality of welding programs in a  
4 memory in the welding-type system;  
5           connecting a pda to the welding-type system;  
6 and  
7           selecting at least one of the plurality of  
8 programs for uploading;  
9           uploading the at least one of the plurality  
10 of programs to the pda.

1           41. A method of transferring data to or from  
2 a welding-type system, comprising:  
3           wirelessly connecting a device to the  
4 welding-type system; and  
5           transferring a welding program to or from the  
6 device from the welding-type system.

1           42. The method of claim 41, further including e-  
2 mailing the program to the device, storing the program on  
3 the device, and transferring, over the wireless connection,  
4 the program to the welding-type system.

1           43. The method of claim 41, wherein wirelessly  
2 connecting includes connection between welding-type system  
3 and one of a pda, laptop computer and desktop computer.

4           44. A welding-type system, comprising:  
5           a source of welding-type power;  
6           a controller, operatively connected to the  
7 source of welding-type power, wherein the controller  
8 includes a memory and a controller wireless port;  
9           a remote computing device, having a memory  
10 for storing a plurality of weld programs therein, and  
11 further having a remote wireless port connected to the  
12 controller wireless port;  
13           a weld program selecting routine operatively  
14 connected to the device; and  
15           a transfer routine, operatively connected to  
16 the device.

1           45. The system of claim 44, further comprising a  
2 download routine that allows the device to download at least  
3 one weld schedule from the device to the controller, wherein  
4 the at least one program is in an e-mail message.